

# CALIFORNIA ECONOMIC BASE REPORT: SOUTHERN BORDER REGION



# **Prepared for the**



**DECEMBER 2006** 

# **California Economic Strategy Panel**

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### **PREFACE**

The bipartisan California Economic Strategy Panel (Panel) was established in 1993 to develop an overall economic vision and strategy to guide public policy. The Panel engages in an objective and collaborative biennial planning process that examines economic regions, industry clusters, and cross-regional economic issues. The 15-member Panel is comprised of eight appointees by the Governor, two appointees each by the California Senate President Pro-Tempore and the California Assembly Speaker and one appointee each by the Senate and Assembly Minority Floor Leaders. The Secretary of the California Labor & Workforce Development Agency serves as the Panel Chair.

The California Regional Economies Project is currently the lead research mechanism for the Panel to identify economic policy issues. The project provides the state's economic and workforce development systems with data and information about changing regional economies and labor markets. The information provides a new resource in economic and workforce development planning and a bridge connecting economic and workforce policies and programs at the state and regional levels.

Since 1996, the Panel recognized the rapidly changing nature of the California economy and its economic regions. In order to understand the state's economy and the changes taking place within industry sectors and industry clusters, it is important to recognize the regional nature of the economy and to analyze the economic base by region. To do this, the statewide and nine regional economic base reports analyze the patterns of employment, business establishments, wages, population, unemployment rate and other key factors.

This report presents a statewide overview and comparative analysis of the nine regions from 2001 to 2004. Also, in-depth economic base reports for each region are available. The previous economic base reports examined the 1990-2002 period, and were the first economic base reports for the regional economies as they are defined today. The Panel's initial work, from 1994-1996, resulted in identification of six regions and provided regional economic base analyses; however, those regions had been significantly redefined by 1998, making comparisons to the early analyses impractical.

The source of the data used for these reports is the official employment and wage information reported by employers to the State. While a variety of other sources provide similar information, they may not capture the official numbers that employers report, or may not include input from all employers. This data source is the most comprehensive and accurate source of information direct from employers, and is therefore the best to use for public policymaking, planning and program administration.

The Panel has taken steps to institutionalize the analysis and preparation of these economic base reports within State government so that this analysis may be provided on a yearly basis. Also, steps have been taken to leverage the body of knowledge that now exists around the study of industry clusters, gained through the California Regional Economies Project.

First, a non-confidential version of the data series, the *California Regional Economies Employment Series*, has been made available online by the California Employment Development Department's Labor Market Information Division so that regional organizations may access this data at the county level. Second, a step-by-step guide, the *Clusters of Opportunity User Guide*, is available online so that regional organizations can conduct industry cluster studies and work with business and industry to test and apply the findings. With this information, regional organizations may conduct their own economic base and industry cluster analyses down to the county level, and they may combine county data to create their own sub-regional study areas. Training workshops have been held to teach the methodology and processes outlined in the *Clusters of Opportunity User Guide* to representatives from local and regional organizations including Local Workforce Investment Boards, economic development organizations, and community colleges.

The statewide and regional economic base reports, the Clusters of Opportunity User Guide and other studies are available on the Panel's website at http://www.labor.ca.gov/panel/.

The California Regional Economies Employment Series is available online at http://www.labormarketinfo.edd.ca.gov/cgi/databrowsing/?PageID=173.

The California Regional Economies Project is sponsored by the California Labor & Workforce Development Agency, California Employment Development Department, and California Workforce Investment Board.

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### INTRODUCTION

The California Regional Economies Project provides data and information about changing regional economies and labor markets. The information provides a new resource in economic and workforce development planning, and a bridge connecting economic and workforce policies and programs at the state and regional levels.

In order to understand the state's economy and the changes taking place within industry sectors and industry clusters, it is important to recognize the regional nature of the economy and to analyze the economic base by region. To do this, the statewide and nine regional economic base reports analyze the patterns of employment, business establishments, wages, population, unemployment rate and other key factors.

This report presents an in-depth analysis of the Northern Sacramento Valley Region's economic base from 2001 to 2004. The previous economic base report examined the 1990-2002 period. The statewide and eight other regional economic base reports are also available at http://www.labor.ca.gov/panel/.

### **Data Sources**

The Quarterly Census of Employment and Wages (QCEW) data is the source for the private industry data, which uses the North American Industry Classification System (NAICS) coding system. The Current Employment Statistics (CES) data is the source for all levels of government employment data. The CES data does not offer wage information, so the government wage information in this report was taken from the federal Bureau of Labor Statistics (BLS) QCEW non-confidential data available online. A more detailed explanation of the data sources is available in the statewide report.

### **Industry Clusters versus Sectors**

An industry sector is a group of firms that are doing the same type of work, making the same type of products, or providing the same types of services. Examples include manufacturing, construction, retail trade and health care.

An industry cluster is a group of interdependent industry sectors characterized by competing firms and buyer-supplier relationships, as well as shared labor pools and other specialized infrastructure. They are also geographically concentrated. When identifying "industry clusters of opportunity," the Project adds additional considerations that focus on employment opportunities for regional residents.

### **Definition of the Economic Base Industries**

Economists divide industries into two groups; export-oriented and local-serving (also referred to as population-driven). Export-oriented industries are industries that sell a large portion of their goods and services to people and businesses in markets outside of the region, creating capital (bringing capital into) the region. Local-serving industries are

industries that sell their goods and services to people and businesses in markets within the region. These industries do not typically create new capital for the region, but recirculate it within the region.

In the previous economic base reports completed in 2004, the two principal researchers who provided the analyses did not agree on a common definition of an area's economic base. One favored the traditional approach, while the researcher analyzing the rural regions felt that there were key local-serving industries that were critical to these regions and should be included in the economic base.

For the current economic base reports, we have chosen to include some industries in our definition of the economic base that are not traditionally included. We do this in part due to the transformations taking place within the industries or regions, and also in recognition of the importance of industries that provide significant employment opportunities for the region, including some high-wage/high-demand sectors and clusters that would otherwise not be included.

While the traditional discussion of an economic base is still the one most used by economists, we feel the other perspective better fits the nature of the California Regional Economies Project, which constantly views the economy in new ways and from new perspectives in order to see transformations taking place. We acknowledge that this use of the term, "economic base," conflicts with the standard definition, and that we are choosing to redefine it for the purpose of these reports. We respect that some will disagree with our use of the term in this way; however, this should not detract from the important economic information presented in the reports. The current reports begin to address the differences in the definition of the regions' economic base industries, which began with the first economic base reports. We plan to revisit this issue again in the future.

A detailed discussion of the definition of the economic base and the differences between the previous and current reports is available in the statewide report.

Definitions by NAICS code for all of the industry sectors and clusters in the statewide overview and regional economic base reports may be found in Appendix A.

### THE SOUTHERN BORDER REGION



The Southern Border Region includes two counties — Imperial and San Diego. This region accounted for 9% of California's jobs (2004) and 8.7% of its population (2006). The region's unemployment rate in 2005 was 4.8%. This region had the lowest unemployment rate of the nine regions, well under the state average of 5.4%.

From 1990 to 2003, the Southern Border Region experienced job growth of almost 25%, as reported in the first economic base report. Since the recent recession, from 2001 to 2004, job growth has continued, increasing by 4%. During this time, private industry jobs increase by 4.8% and Government jobs increased by just 0.4%.

Characteristics of the Southern Border Region						
(Numbers are in the	ousands, except for dollar	amounts)				
	So. Border as % of CA					
Population (2006)	3,233	37,172	9%			
Labor Force (2005)	1,567	17,696	9%			
Unemployment Rate (2005)	4.8%	5.4%	88%			
Manufacturing Jobs* (2004)	107.3	1,507.8	7%			
Per Capita Income (2004)	\$ 37,167	\$ 35,219	105.5%			
Average Wage (2004)	\$ 40,951	\$ 43,724	94%			

Source: Jobs, Labor Force, Unemployment Rate and Average Wage – California Employment Development Department, Labor Market Information Division; Population and Per Capita Income – U.S. Bureau of Economic Analysis

\* Manufacturing Jobs reported here are traditional production jobs (NAICS 31-33).

During the period 2001-2004, the Southern Border Region reported a net increase of almost 12,700 private industry establishments (up over 16%), to over 90,100 in 2004. The number of establishments has grown steadily. The industry sectors reporting the greatest increase in number of establishments were Private Households (adding almost 6,500 establishments), Professional, Scientific, and Technical Services (adding over 1,500 establishments), and Real Estate (adding almost 700 establishments).

### THE ECONOMIC BASE

The economic base is traditionally considered to be made up of export-oriented industries in the study area - industries that sell a large portion of their goods or services to people and businesses in markets outside of the area. For the purpose of this report, we have chosen to include industries in our definition of the economic base that are not traditionally included. We acknowledge that our definition of the economic base differs from standard practice. We do this in part due to the transformations taking place within the industries or region, and also in recognition of the importance of industries that provide significant employment opportunities for the region, including some high-wage/high-demand industries that would otherwise not be included.

Economic base reports also typically look only at industry sectors; however, this analysis will also include industry clusters, where studies by the California Regional Economies Project have defined clusters that provide significant employment for the region<sup>1</sup>.

The criteria for selecting the components of the economic base include the top job providers in 2004, those industries with a high growth rate from 2001 – 2004, and the top job generators from 1990 to 2002, as identified in the previous economic base report. In those cases where industry clusters are examined beginning with the 2001-2004 period, direct comparisons may not be possible with the findings from the first economic base report.

Based on these criteria, the industry clusters and industries included in the Southern Border Region's economic base for this analysis are the following<sup>2</sup>, listed by NAICS code:

The Food Chain
Construction
Manufacturing Value Chain
Wholesale Trade
Health Sciences & Services
Basic Information Services
Professional, Scientific, Technical & Management Services
Entertainment & Tourism
All Government

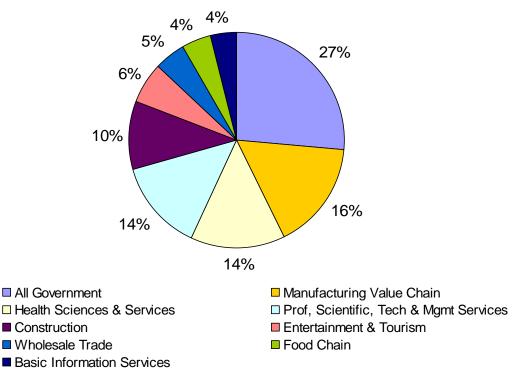
The total jobs reported by the economic base industries and clusters represent 66% of the region's total jobs. From 2001-2004, the economic base gained almost 5,600 jobs, or less than 1%.

Industry Clusters of Opportunity are defined by the California Regional Economies Project as geographically-concentrated, and interdependent industry sectors characterized by competing firms and buyer-supplier

clusters.

concentrated, and interdependent industry sectors characterized by competing firms and buyer-supplier relationships, as well as shared labor pools and other specialized infrastructure. In addition to export-oriented sectors, they also include population-driven sectors as well as sectors that offer occupations with career potential. 
<sup>2</sup> See Appendix A for a complete listing of all sub-sectors included in the economic base industries and industry





(Industries are listed in order as they appear in the chart, reading left to right across columns.)

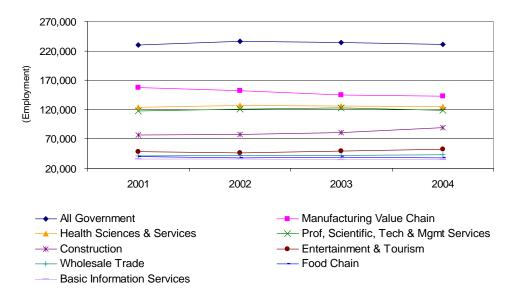
All Government provided the most jobs for the region, with 230,800 jobs in 2004. This represents over 26% of the economic base and over 17% of all jobs in the region. The Manufacturing Value Chain was second with 143,000 jobs, which was over 16% of the economic base and almost 11% of all jobs.

Health Sciences & Services was the third largest component of the economic base, with 125,400 jobs in 2004; over 14% of the region's economic base jobs. This was followed by Professional, Scientific, Technical & Management Services, which reported almost 119,000 jobs (almost 14% of the base); and Construction, with almost 89,400 jobs (over 10% of the base).

The remaining industries in the economic base are Entertainment & Tourism (almost 52,800 jobs), Wholesale Trade (42,900 jobs), the Food Chain (37,700 jobs), and Basic Information Services (34,300 jobs).

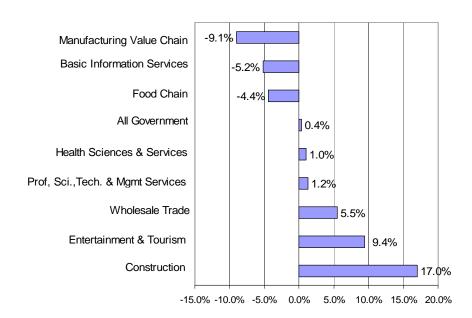
The following graph shows employment for the economic base industries and clusters from 2001-2004:

### **Southern Border Region Economic Base Jobs**

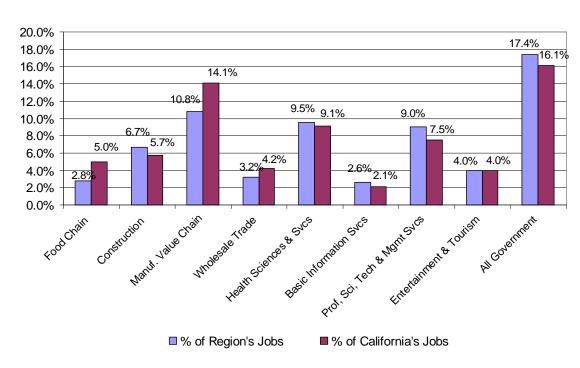


In addition to size, another important measure is job growth. From 2001-2004, six of the nine industries and clusters in the economic base reported growth. These included Construction (up 17%); Entertainment & Tourism (up over 9%); Wholesale Trade (up 5.5%); Professional, Scientific, Technical & Management Services (up 1%); Health Sciences & Services (up 1%); and, All Government (up 0.4%). The remaining industries reported job losses between 4% and 9% for the period. The following graph shows the job growth and losses from 2001-2004:

### **Economic Base Job Growth 2001-2004**



Another factor to consider is the concentration of an industry within a region – the percentage of the region's jobs that the industry provides – and also how this compares to the concentration within the state or nation. The following graph compares the concentration of the leading employment sectors in the region to the statewide concentration.



### Share of Regional & Statewide Employment

The average annual wage<sup>3</sup> for all industries in the Southern Border Region is \$40,951. This region has the third highest overall average wage of the nine regions. Within the region's economic base, the average annual wage by industry and cluster ranges from a high of \$93,932 for Basic Information Services jobs, to a low of \$25,850 for Entertainment & Tourism jobs. (Wages for the All Government industry are not available.)

The Basic Information Services industry reports the highest average wage but provides just 4% of the jobs in the region's economic base. Professional, Scientific, Technical & Management Services has the second highest average wage at \$64,746, and provides 14% of the economic base jobs. Entertainment & Tourism, which reported the lowest averages wages, provides 6% of the economic base jobs.

Basic Information Services also reported the greatest (percentage) increase in average wages from 2001 to 2004, rising almost 24%, from \$75,897 in 2001 to \$93,932 in 2004; the industry

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<sup>&</sup>lt;sup>3</sup> The average annual wage is calculated by dividing the total wages by the total employment (both figures are reported by the employers); the wages and employment data reported do not distinguish between part and full time hours or overtime hours worked. This statistic provides good information for making comparison and tracking trends; however, it may not be the best resource available for employers or researchers and service providers to use when determining a competitive or typical pay scale for employees in a particular industry and/or region.

provides just 4% of the region's economic base jobs. Health Sciences & Services reported the second largest increase in wages, from \$44,342 to \$50,940, or almost 15%. The industry or cluster reporting the least change was Entertainment & Tourism, which reported an increase of just over 5%, from \$24,545 to \$25,850.

The following table provides the average annual wage for each industry and cluster in the region's economic base, and compares these to the statewide averages. It also shows the percentage of the economic base jobs that each industry/cluster provides, to point out the percentage of jobs in the higher and lower paying industries/clusters.

Average Annual Wages 2004	Statewide	Southern Border Region	% of Region's Economic Base Jobs
ALL INDUSTRIES	\$ 43,724	\$ 40,951	
Food Chain	31,939	30,231	4%
Construction	43,707	43,670	10%
Manufacturing Value Chain	54,162	54,038	16%
Wholesale Trade	28,546	52,351	5%
Basic Information Services	83,197	93,932	4%
Prof, Scientific, Tech. & Mgmt Services	71,904	64,746	14%
Health Sciences & Services	49,205	50,940	14%
Entertainment & Tourism (Urban)*	20,802	25,850	6%
All Government**	47,835	45,965	27%

<sup>\*</sup> The definition of the Entertainment & Tourism industry differs from urban to rural regions, for the purpose of this report. For urban regions, Entertainment & Tourism combines Arts, Entertainment & Recreation with Accommodation and Motion Picture & Sound Recording Industries; it does not include Food Services. For rural regions, Entertainment & Tourism combines Accommodation & Food Services with Arts, Entertainment & Recreation; it does not include Motion Picture & Sound Recording Industries. For the statewide analysis, the Entertainment & Tourism industry combines Accommodation & Food Services with Arts, Entertainment & Recreation, and also includes Motion Picture & Sound Recording Industries.

The remainder of this report discusses each economic base industry or cluster in further detail.

<sup>\*\*</sup> Government average annual wages include the wages for a broad spectrum of jobs, including elected officials and executive branch, judicial, defense, law enforcement, firefighting, education and other public administration jobs. The source for this data is the Bureau of Labor Statistics (BLS) online QCEW data, as the CES data used for the government employment numbers does not include wage information. Wage data for some counties was suppressed.

### THE FOOD CHAIN

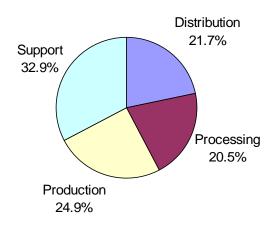
The Food Chain cluster has been defined by the California Regional Economies Project as including not only Production sectors, but also Support, Processing and Distribution sectors. The previous economic base report only looked at agriculture as a part of the Resource Based industries. This report will instead look at the Food Chain cluster.

The Food Chain cluster provides over 4% of the economic base jobs for the Southern Border Region, and almost 3% of all jobs in the region.

From 1990-2002, the Agriculture, Forestry, Fishing & Hunting industry employment decreased from 25,800 jobs in 1990 to 20,800 jobs in 2002. Fruit & Vegetable Preserving also lost jobs, from 500 in 1990 to 400 jobs in 2002.

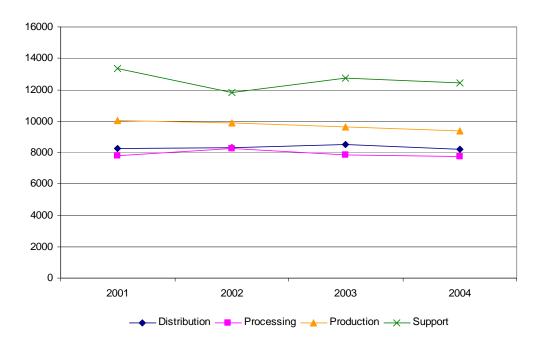
For the 2001-2004 period, the Food Chain cluster experienced net job losses of over 1,700 jobs, or 4%, dropping from almost 39,500 jobs in 2001 to 37,700 jobs in 2004. In 2004, Support represented almost 33% of the cluster; Production represented almost 25%; Processing represented 20.5%; and, Distribution represented almost 22%.

The Southern Border Region Food Chain 2004



From 2001-2004, all four components of the cluster reported job losses. Support lost almost 1,000 jobs (down 7%); Production lost over 600 jobs (down 6%); Processing lost less than 100 jobs (down 1%), and Distribution lost less than 100 jobs (down 1%).

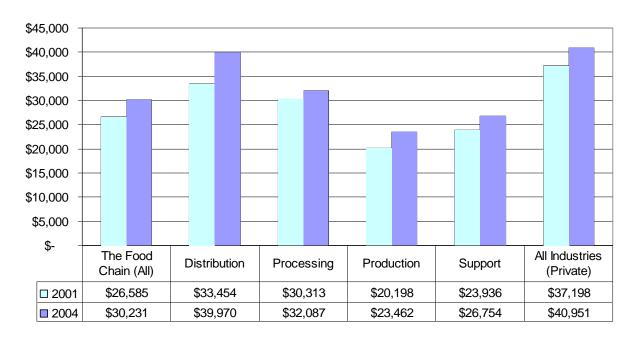
### **Food Chain Jobs**



Within Support, the largest sub-sector is Support Activities for Crop Production, followed by Veterinary Activities. Within Production, the largest sub-sector is Vegetable & Melon Farming, followed by Fruit & Tree Nut Farming. Within Processing, the largest sub-sector is Bakeries & Tortilla Manufacturing, followed by Soft Drink & Ice Manufacturing. Within Distribution, the largest sub-sector is Grocery & Related Product Wholesalers, followed by Specialty Food Stores.

The Food Chain cluster's average annual wage for the region in 2004 was \$30,231. Within the cluster, for Support jobs the average annual wage was \$26,754; for Production jobs the average was \$23,462; for Processing jobs the average was \$32,087; and, for Distribution jobs the average was \$39,970. The Food Chain cluster provides 4% of the region's economic base jobs.

**The Food Chain Wages** 



The following table provides information on employment by major component:

Southern Border Region						
	Food Chain					
	(Thousands of Jobs)					
		200 I	2002	2003	2004	
Support		13.4	11.8	12.7	12.4	
Production		10.0	9.9	9.6	9.4	
Processing		7.8	8.3	7.8	7.7	
Distribution		8.3	8.3	8.5	8.2	

Source: California Employment Development Department

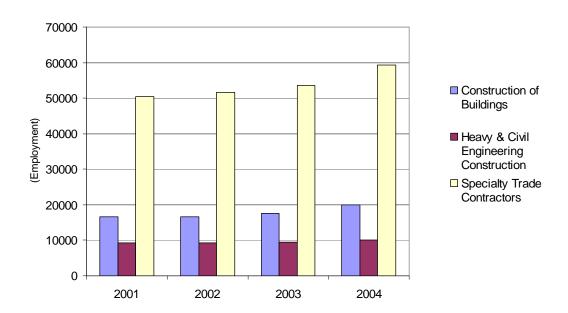
### CONSTRUCTION

The Construction industry provided over 10% of the economic base jobs for the Southern Border Region in 2004, and almost 7% of all jobs in the region.

Employment in Construction fell during the first part of the 1990 – 2002 period, but began a steady increase from 1994 to 2002, reporting overall growth of 15.5% for the period. Construction slowed in the early '90's recession, but showed job gains during the recent recession, as reported in the previous economic base report.

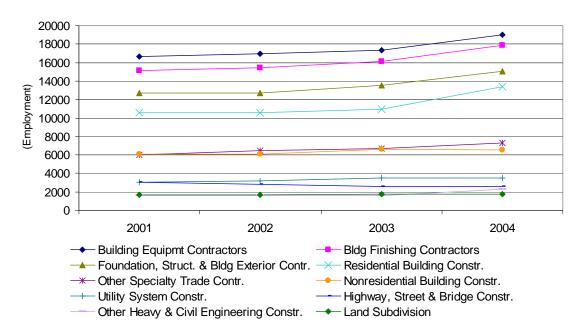
From 2001-2004, Construction jobs in the Southern Border Region increased by almost 13,000 jobs, or 17%. The fifth largest component of the region's economic base, Construction reported the highest percentage of job growth during this period. All three of the main sectors reported job growth from 2001-2004. Specialty Trade Contractors provides the most jobs, with over 59,300 jobs in 2004, and growth of 18% for the period. Construction of Buildings reported almost 20,000 jobs and growth of 20%. Heavy & Civil Engineering Construction reported 10,100 jobs in 2004 and growth of 9%.

### **Construction Jobs**



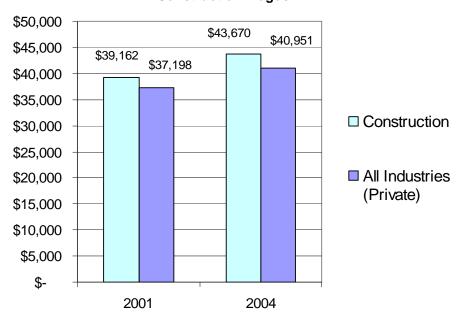
All four of the largest sub-sectors reported job growth from 2001 to 2004. Building Equipment Contractors was the largest sub-sector in all of the Construction industry in 2004, with 19,000 jobs; the sub-sector reported growth of 14% from 2001-2004. Second, Building Finishing Contractors provided almost 17,900 jobs, with growth of 18%. Foundation, Structure & Building Exterior Contractors was third, with almost 15,100 jobs in 2004, and 19% growth during this period. The fourth largest sub-sector was Residential Building Construction, with over 13,400 jobs, and growth of 27%.

### **Construction Sub-sector Jobs**



The industry's average annual wage for the region in 2004 was \$43,670, up 11.5% from the 2001 average of \$39,162. Construction provides 10% of the region's economic base jobs. The following chart shows the changes from 2001 to 2004 and compares the industry's average with the region's overall average wage (all industries).

### **Construction Wages**



The following table provides information on employment in the Construction industry:

Southern Border Region  Construction					
	2001	2002	2003	2004	
Residential Building Construction	10.6	10.6	11.0	13.4	
Nonresidential Building Construction	6.1	6.1	6.6	6.6	
Utility System Construction	3.0	3.2	3.5	3.5	
Land Subdivision	1.6	1.6	1.8	1.7	
Highway, Street & Bridge Construction	3.0	2.8	2.6	2.6	
Other Heavy & Civil Engineering Construction	1.6	1.6	1.6	2.3	
Foundation, Structure, & Exterior Contractors	12.7	12.7	13.5	15.1	
Building Equipment Contractors	16.6	17.0	17.3	19.0	
Building Finishing Contractors	15.1	15.4	16.1	17.9	
Other Specialty Trade Contractors	6.0	6.5	6.7	7.3	

Source: California Employment Development Department. Data for 1990, 1994, 2000 and 2002 are presented from the previous economic base report. Data for 2004 are presented from the current analysis of 2001-2004 data. The data source has changed since the earlier report.

### MANUFACTURING VALUE CHAIN

Manufacturing industries are important for innovation, high wages and exports. Yet, the production component of manufacturing is not likely to be a growing source of job growth for the region or the state.

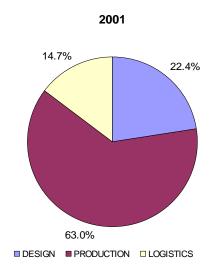
California's manufacturing industry is undergoing a transformation. While traditional manufacturing (production) jobs are declining, job growth is occurring in the design and logistics (warehousing and delivery) phases of manufacturing. Improvements in production technology have impacted the number of production jobs while the "just in time" approach to supply and delivery is lowering warehousing costs and has increased the number and types of jobs in logistics.

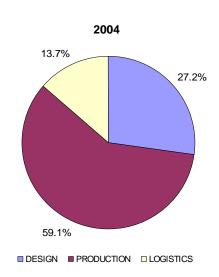
The California Regional Economies Project calls this industry cluster the Manufacturing Value Chain. The design and logistics components of manufacturing are providing more middle and higher-level jobs that pay well and offer career development opportunities.

Manufacturing remains a critical component of the Southern Border Region's economy. The Manufacturing Value Chain cluster provides over 16% of the jobs in the region's economic base, and almost 11% of all jobs in the region.

In 2004, Design represented just over 27% of the jobs in the Manufacturing Value Chain cluster; Production represented jut over 59%; and, Logistics represented almost 14% of the cluster. Since 2001, the Design share of the cluster has increased by almost 5% while the Production share has decreased by about 4% and the Logistics share has decreased by 1%. Production and Logistics jobs each declined by 15% from 2001 – 2004, while Design reported 11% job growth; the cluster as a whole lost 9% of its jobs.

The following graph illustrates how Design, Production and Logistics jobs have changed in the region from 2001 to 2004:





Within the Design component of the Manufacturing Value Chain, the Architectural, Engineering & Related Services sub-sector provided the most jobs in 2004, with over 20,000 jobs. This sub-sector reported job growth of 14%. The second largest sub-sector in Design was Management, Scientific & Technical Consulting Services, with 11,700 jobs. This sub-sector reported job growth of 13%.

Within Production, the Semiconductor & Other Electronic Component Manufacturing subsector reported the most jobs in 2004 (over 7,800), but experienced job losses of 19% from 2001 to 2004. Second, the Navigational, Measuring, Electromedical & Control Instruments subsector reported almost 5,700 jobs in 2004, but experienced job losses of 10%. The third largest Production sub-sector, Aerospace Product & Parts Manufacturing, reported almost 5,300 jobs but losses of 16% for the period.

Within Logistics, the Couriers sub-sector provided the most jobs (over 3,600 in 2004), followed by Warehousing and Storage (3,000 jobs); however, both reported job losses, 7% and 48% respectively. The sub-sector that added the most jobs was General Freight Trucking, which added almost 500 jobs for growth of 20%, growing from over 2,300 jobs in 2001 to over 2,800 jobs in 2004.

### TWO KEY SECTORS WITHIN TRADITIONAL MANUFACTURING

The previous economic base report looked specifically at the Diversified Manufacturing and High Tech Manufacturing sectors. Each is discussed briefly below, to provide an update on these key sectors.

### **Diversified Manufacturing**

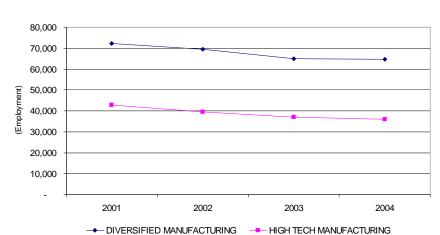
Diversified Manufacturing provided almost 64,700 jobs or 5% of the jobs in the Southern Border Region in 2004. After the recession of the early 1990's, the industry reported strong job growth between 1994 and 1998, and then steadily declined through 2002. From 2001 to 2004, Diversified Manufacturing lost over 7,600 jobs, or 11%.

Within the Diversified Manufacturing industry, the larger sectors based on employment include Miscellaneous Manufacturing (led by Medical Equipment & Supplies Manufacturing); Fabricated Metal Product Manufacturing (led by Machine Shops); Machinery Manufacturing (led by Engine, Turbine & Power Transmission Equipment Manufacturing); and, Ship & Boat Building. Of these, only Ship & Boat Building (up 33%) reported job growth from 2001-2004.

### High Tech Manufacturing

High Tech Manufacturing provided 36,000 jobs or about 3% of the jobs in the Southern Border Region in 2004. The first economic base report showed that High Tech Manufacturing job levels plunged between 1990 and 1996, primarily due to the losses in the region's aerospace sector. The region experienced losses in high tech jobs at the same time. 1997 through 2000 showed job growth, but fell again with the recent recession. From 2001-2004, during and after

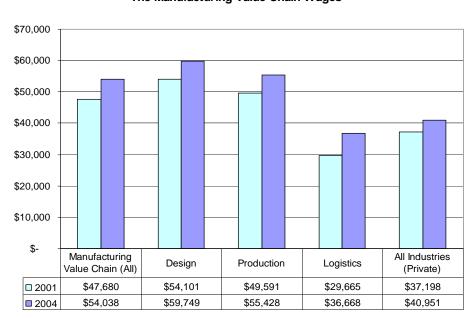
the recent recession, jobs continued to fall, to a low of 36,000 jobs in 2004; this reflected losses of almost 6,900 jobs for the period, or 16%.



### **Diversified and High Tech Manufacturing Jobs**

The leading sub-sectors in 2004 were Semiconductors & Other Electronic Component Manufacturing; Navigational, Measuring, Electromedical & Control Instruments; Aerospace Product & Parts Manufacturing; and, Communications Equipment Manufacturing. All of these sectors reported job losses from 2001-2004.

The Manufacturing Value Chain cluster's average annual wage for the region in 2004 was \$54,038, up over 13% from the 2001 average of \$47,680. Within the cluster, the component with the highest average annual wage is Design, with an average of \$59,749 in 2004. The Manufacturing Value Chain provides 16% of the region's economic base jobs. The following chart graphs the changes from 2001 to 2004 and compares the industry's average with the region's overall average wage (all industries).



The Manufacturing Value Chain Wages

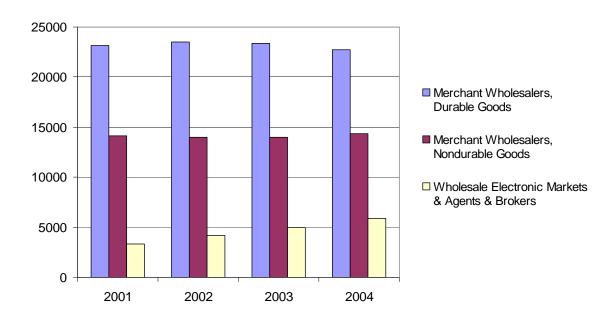
### WHOLESALE TRADE

Wholesale Trade provided 5% of the economic base jobs for the Southern Border Region in 2004, over 42,900 jobs, and just over 3% of all jobs in the region.

During the period of 1990-2002, Wholesale Trade employment grew from 29,100 jobs to 38,700 jobs, an increase of about 33%. (The data for the 1990-2002 period include Wholesalers of Durable Goods and Wholesalers of Nondurable Goods; the data for the 2001-2004 period adds Wholesale Electronic Markets & Agents & Brokers, so totals will differ for the overlapping years.)

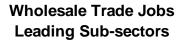
For the 2001-2004 period, Wholesale Trade gained over 2,200 jobs, growing from 40,700 in 2001 to 42,900 in 2004 – a gain of 5.5%. During this time, the largest sector, Wholesalers of Durable Goods reported 2% job losses. Wholesalers of Nondurable Goods and Wholesale Electronic Markets & Agents & Brokers both reported job growth. The smaller sector, Wholesale Electronic Markets & Agents & Brokers reported 76% growth, up 2,200 jobs.

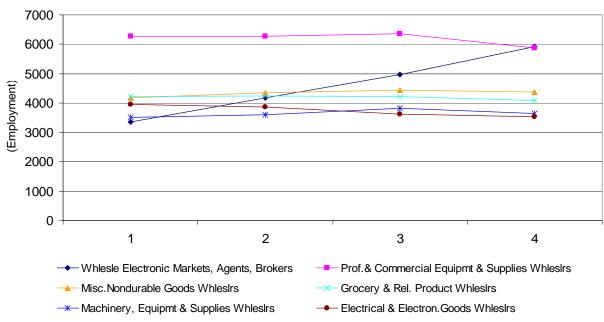
### Wholesale Trade Jobs



Within the Wholesale Trade industry, the sub-sectors providing the greatest number of jobs are Wholesale Electronic Markets & Agents & Brokers (over 5,900 jobs in 2004); Professional & Commercial Equipment & Supplies Merchants (almost 5,900 jobs); Miscellaneous Nondurable Goods Wholesalers (almost 4,400 jobs); and, Grocery & Related Product Wholesalers (almost 4,100 jobs).

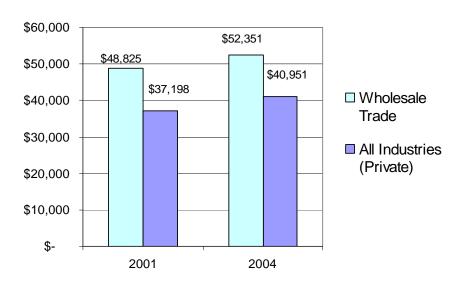
The following graph shows job growth for the top six sub-sectors from 2001-2004:





The industry's average annual wage for the region in 2004 was \$52,351, up over 7% from the 2001 average of \$48,825. Wholesale Trade provides 5% of the region's economic base jobs. The following chart graphs the changes from 2001 to 2004 and compares the industry's average with the region's overall average wage (all industries).

### Wholesale Trade Wages



The following table provides information on employment in the Wholesale Trade industry:

Southern Border Region				
Wholesale Trade				
(Thousands of Jobs)				
	2001	2002	2003	2004
Motor Vehicle, Parts, Supplies Wholesalers	2.5	2.3	2.2	2.1
Furniture & Home Furnishing Wholesalers	1.0	1.0	1.0	0.9
Lumber & Construction Materials Wholesalers	1.2	1.2	1.2	1.3
Prof. & Commercial Equip. & Supplies Wholesalers	6.3	6.3	6.4	5.9
Metal & Mineral (except Petroleum) Wholesalers	0.4	0.4	0.3	0.3
Electrical & Electronic Goods Wholesalers	3.9	3.9	3.6	3.5
Hardware, Plumbing, Heating & Supplies Wholesalers	1.7	1.7	1.6	1.8
Machinery, Equipment, & Supplies Wholesalers	3.5	3.6	3.8	3.6
Miscellaneous Durable Goods Wholesalers	2.6	3.3	3.2	3.2
Paper & Paper Product Wholesalers	0.9	8.0	0.7	0.6
Drugs and Druggists' Sundries Wholesalers	1.4	0.9	0.7	1.2
Apparel, Piece Goods, & Notions Wholesalers	1.1	1.3	1.3	1.4
Grocery & Related Product Wholesalers	4.2	4.2	4.2	4.1
Farm Product Raw Material Wholesalers	0.0*	0.0*	0.1	0.1
Chemical & Allied Products Wholesalers	0.6	0.7	0.7	0.7
Petroleum & Petroleum Products Wholesalers	0.5	0.5	0.5	0.4
Beer, Wine, & Distilled Alcoholic Bev. Wholesalers	1.2	1.2	1.4	1.5
Miscellaneous Nondurable Goods Wholesalers	4.2	4.4	4.4	4.4
Wholesale Electronic Markets & Agents & Brokers	3.4	4.2	5.0	5.9

Source: California Employment Development Department

\* Employment was reported; however, there were less than 50 jobs, so rounded to 0.0 thousands.

### **HEALTH SCIENCES & SERVICES**

For the previous economic base report, the Health Care & Social Assistance industry was used for studying employment in health care. The industry also included social services. For this and future reports, the Health Sciences & Services industry cluster will be used instead of Health Care & Social Assistance.

The Health Sciences & Services cluster includes health care services, such as offices of physicians, dentists, other health practitioners and other outpatient care facilities; hospitals; laboratories; home health care; nursing care and other residential care facilities. It also includes community, emergency and other relief services; vocational rehabilitation services; and, death care services. Within health sciences, the cluster includes pharmaceutical and medicine manufacturing; medical equipment and supplies manufacturing; and, scientific research and development (R&D) services.

In 2004, the Health Sciences & Services cluster was the third largest component of the Southern Border Region's economic base, providing over 125,400 jobs – 10% of the economic base and 9.5% of all jobs in the region.

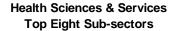
From 1990-2002, the Health Sciences & Services cluster experienced continued and steady growth, with an average annual growth rate of 3%, as reported in the study, *Golden Opportunity, Growing Crisis: The Health Sciences and Services Cluster (September 2004)*. The report identified the region as a prototype biomedical cluster, with the strongest export sectors in Scientific Research & Development and Hospitals, and the overall highest employment concentration for Health Sciences & Services in California. The region grew from 93,300 jobs in 1990 to over 127,200 in 2002.

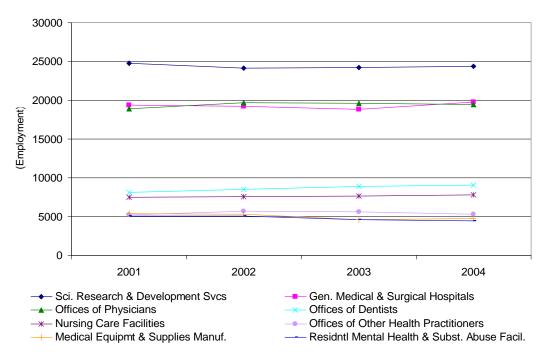
For the period 2001-2004, Health Sciences & Services reported overall job growth of 1,300 jobs or 1%. During this period, employment peaked in 2002, and then decreased slightly each of the next two years.

Within the cluster, the Scientific Research & Development sub-sector provides the most jobs, with 24,400 jobs in 2004 (down 1% from 2001-2004). General Medical & Surgical Hospitals was second with over 19,700 jobs in 2004 (up 2%). Third, Offices of Physicians reported over 19,400 jobs in 2004, and growth of 3% for the period. Fourth, the Offices of Dentists subsector reported 9,000 jobs and 12% growth during the period.

These were followed by Nursing Care Facilities, with 7,800 jobs (up 4%); Offices of Other Health Practitioners, with almost 5,300 jobs (up 1%); Medical Equipment & Supplies Manufacturing with almost 4,800 jobs (down 12%); and, Residential Mental Health & Substance Abuse Facilities, with 4,400 jobs (down 13%).

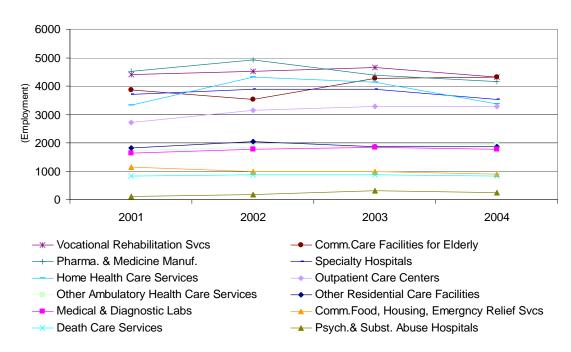
The following graph shows the change in employment from 2001 to 2004 for the top eight subsectors:



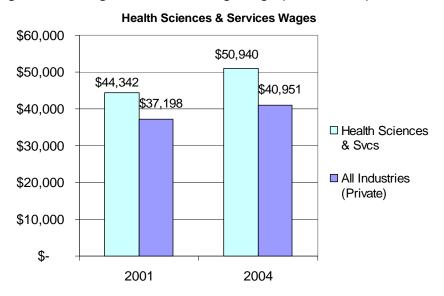


The next graph shows the change in employment from 2001 to 2004 for the remaining subsectors:

### More Health Sciences & Services Jobs



The cluster's average annual wage for the region in 2004 was \$50,984, up almost 15% from the 2001 average of \$44,342. Health Sciences & Services provides 14% of the region's economic base jobs. The following chart graphs the changes from 2001 to 2004 and compares the industry's average with the region's overall average wage (all industries).



The following table provides data on cluster employment by sub-sector for 2001-2004:

Southern Border R	Region			
Health Sciences & Services				
(Thousands of Job	s)			
	2001	2002	2003	2004
Pharmaceutical & Medicine Manufacturing	4.5	4.9	4.4	4.2
Medical Equipment & Supplies Manufacturing	5.4	5.3	4.6	4.8
Scientific Research & Development Services	24.7	24.2	24.2	24.4
Offices of Physicians	18.9	19.7	19.6	19.4
Offices of Dentists	8.1	8.5	8.9	9.0
Offices of Other Health Practitioners	5.2	5.7	5.6	5.3
Outpatient Care Centers	2.7	3.1	3.3	3.3
Medical & Diagnostic Laboratories	1.7	1.8	1.9	1.8
Home Health Care Services	3.3	4.3	4.1	3.4
Other Ambulatory Health Care Services	1.7	1.8	1.9	2.0
General Medical & Surgical Hospitals	19.4	19.2	18.9	19.7
Psychiatric & Substance Abuse Hospitals	0.1	0.2	0.3	0.2
Specialty (except Psychiatric & Subst. Abuse) Hospitals	3.7	3.9	3.9	3.5
Nursing Care Facilities	7.5	7.6	7.6	7.8
Residential Mental Health & Subst. Abuse Facilities	5.1	5.1	4.6	4.4
Community Care Facilities for the Elderly	3.9	3.5	4.3	4.3
Other Residential Care Facilities	1.8	2.1	1.9	1.9
Comm. Food, Housing, Emergency & Other Relief Svcs	1.2	1.0	1.0	0.9
Vocational Rehabilitation Services	4.4	4.5	4.6	4.3
Death Care Services	8.0	0.9	0.9	8.0

Source: California Employment Development Department

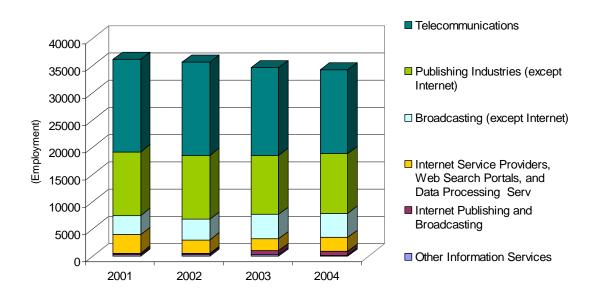
### **BASIC INFORMATION SERVICES**

Basic Information Services includes the main sectors Broadcasting; Internet Publishing & Broadcasting; Telecommunications; Internet Service Providers, Web Search Portals & Data Processing; and, Other Information Services. The industry provided almost 34,300 jobs in 2004, which represented almost 4% of the economic base jobs and almost 3% of all jobs in the region.

From 1990-2002, Basic Information Services employment increased from about 12,800 jobs in 1990 to 28,000 jobs in 2002. Employment had peaked in 2000, leveled off in 2001, and dropped slightly in 2002. The three largest sub-sectors were Wireless Carriers and Telecommunications Resellers, followed by Software Publishers.

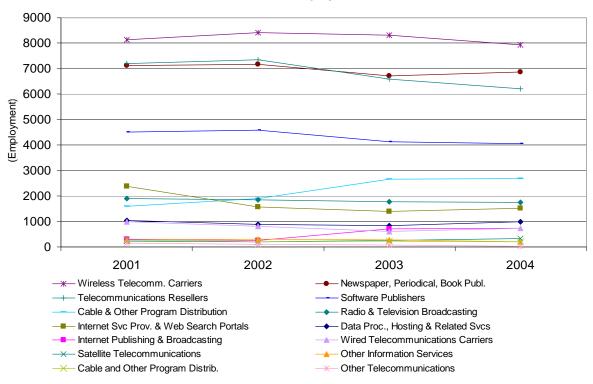
From 2001-2004, Basic Information Services experienced steady job losses, going from over 36,100 jobs in 2001 to almost 34,300 jobs in 2004; a loss of almost 1,900 jobs, or over 5%. The largest sector is Telecommunications, with almost 15,500 jobs in 2004, or 45% of the industry's jobs; the sub-sector reported job losses of 9% between 2001 and 2004. This was followed by Publishing Industries (except Internet), with over 10,900 jobs or 32% of the industry's jobs in 2004; the sub-sector reported losses of 6%. Broadcasting was third, with 4,400 jobs (up 26%).

### **Basic Information Services Jobs**



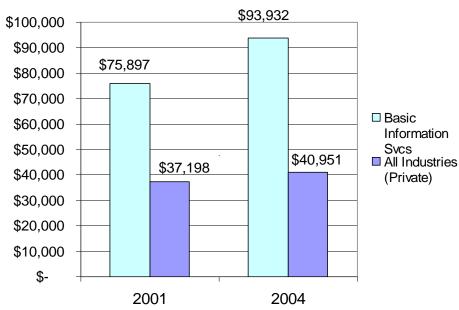
The leading sub-sectors within Basic Information Services are Wireless Telecommunications Carriers with over 7,900 jobs in 2004 (down 2% from 2001); Newspaper, Periodical, Book, and Directory Publishers, with almost 6,900 jobs (down 4%); Telecommunications Resellers, with 6,200 jobs (down 14%); Software Publishers, with over 4,000 jobs in 2004 (down 26%); and, Cable & Other Subscription Programming, with almost 2,700 jobs (up 68%).





The industry's average annual wage for the region in 2004 was \$93,932, up almost 24% from the 2001 average of \$75,897. Basic Information Services provides 4% of the region's economic base jobs. The following chart graphs the changes from 2001 to 2004 and compares the industry's average with the region's overall average wage (all industries).

### **Basic Information Services Wages**



The following table provides employment data for the industry:

Southern Border Region Basic Information Services							
	(Thousands of Jobs)						
·	1990	2000	2002	2004			
Publishing Industries (except Internet)	Not Available	Not Available	Not Available	10.9			
Software publishers	1.1	4.4	4.7	4.1			
Broadcasting, except Internet	3.1	3.6	3.5	4.4			
Internet publishing and broadcasting	0.0	0.4	0.3	0.7			
Telecommunications	6.6	15.7	16.8	15.4			
Wireless Carriers	0.2	7.7	8.2	7.9			
Telecommunications Resellers	6.0	6.2	7.3	6.2			
Other Telecommunications	0.4	1.8	1.3	0.0*			
ISPs and data processing	1.9	4.3	2.4	2.5			
Other information services	0.1	0.2	0.3	0.2			

Source: EDD – Employment numbers for 1990, 2000 and 2002 shown above were taken from the first economic base report.

<sup>\*</sup> Employment was reported; however, there were less than 50 jobs, so rounded to 0.0 thousands.

### PROFESSIONAL, SCIENTIFIC, TECHNICAL & MANAGEMENT SERVICES

Professional, Scientific, Technical & Management Services combines two sectors; Professional, Scientific & Technical Services and Management of Companies & Enterprises.

The Management of Companies and Enterprises sector is a newer category introduced by the NAICS coding system. There appears to have been significant changes in the use of the NAICS codes within this sector since its introduction, where companies originally using this classification may no longer identify themselves in the sector. In some or many cases, they may be identifying themselves within the Professional, Scientific & Technical Services sector.

The Professional, Scientific, Technical & Management Services industry was the fourth largest component of the Southern Border Region's economic base in 2004, providing almost 119,000 jobs; 13.6% of the jobs in the economic base and 9% of all jobs in the region.

Within this industry, the Professional, Scientific & Technical Services sector represented over 84% of the industry's jobs; Management of Companies & Enterprises represented almost 16%.

# 140,000 100,000 80,000 60,000 40,000 20,000 140,000 120

### Professional, Scientific, Technical & Management Services Jobs

For the period 1990-2002, employment in the industry grew slowly at first, during and coming out of the recession of the early '90's. Then, employment experienced strong growth into 2002. Overall, employment rose from almost 80,000 jobs in 1990 to 121,500 in 2002. (The data source from the original base report indicated there were 121,500 jobs in 2002, while the current data source reports 121,300.)

2004

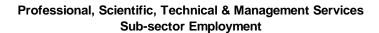
2003

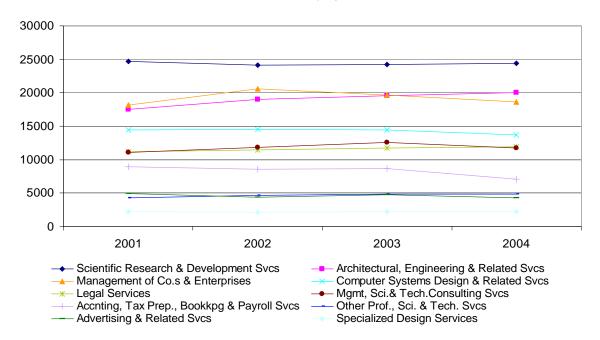
2001

2002

For the period 2001 – 2004, the Professional, Scientific, Technical & Management Services industry reported overall job growth of about 1,500 jobs, an increase of just over 1%. Employment grew through 2003, and then dropped somewhat in 2004.

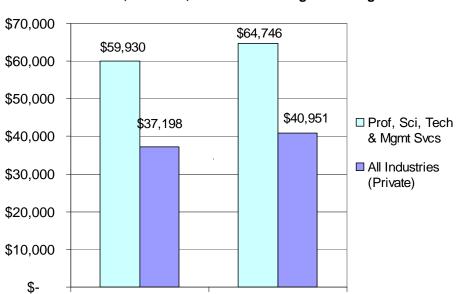
Within the industry, the sub-sectors providing the most jobs in 2004 were Scientific Research & Development Services, providing 24,400 jobs in 2004 (down 1% from 2001); Architectural, Engineering & Related Services, with 20,000 jobs (up 14%); Management of Companies & Enterprises, with 18,600 jobs (up 3%); Computer Systems Design & Related Services, with over 13,700 jobs (down 56%); and, Legal Services, with over 11,900 jobs (up 7%).





The industry's average annual wage for the region in 2004 was \$64,746, up 8% from the 2001 average of \$59,930. Professional, Scientific, Technical & Management Services provides 14% of the region's economic base jobs.

The next graph shows the changes from 2001 to 2004 and compares the industry's average with the region's overall average wage (all industries).



2004

Professional, Scientific, Technical & Management Wages

The following table provides information on employment at the sub-sector level, listed in NAICS code order:

2001

Southern Border Region Professional, Scientific, Technical & Management Services  (Thousands of jobs)				
Legal Services	9.9	10.6	11.4	11.9
Accounting, Tax Prep, Bookkpg & Payroll	7.7	7.7	8.5	7.1
Architectural, Engineering & Related Svcs	12.2	16.9	19.1	20.0
Specialized Design Services	1.6	2.2	2.2	2.3
Computer Systems Design & Related Svcs	5.2	14.8	14.4	13.7
Mgmt, Sci. & Tech. Consulting Svcs	4.2	10.0	11.7	11.7
Sci. Research & Devel. Svcs	16.7	21.2	24.8	24.4
Advertising & Related Svcs	5.9	5.2	4.3	4.3
Other Prof., Sci. & Tech. Svcs	3.3	4.4	4.6	4.9
Mgmt of Co.s & Enterprises	12.5	18.9	20.5	18.6

Source: California Employment Development Department

Employment numbers for 1990, 2000 and 2002 were taken from the first economic base report.

### **ENTERTAINMENT & TOURISM**

The Entertainment & Tourism industry combines Accommodation with Arts, Entertainment & Recreation, and also includes Motion Picture & Sound Recording Industries; it does not include Food Services. This is consistent with the original economic base reports for urban areas.

The Entertainment & Tourism industry is the sixth largest component of the Southern Border Region's economic base. With almost 52,800 jobs in 2004, the industry provides 6% of the economic base jobs, and 4% of all jobs in the region.

From 1990-2002, the Entertainment & Tourism industry employment grew from 43,000 to 45,600 jobs. From 1990 – 1998, employment fluctuated, and then from 1999 to 2000 employment grew slightly, only to level off in 2001 and decrease slightly in 2002. Employment was led by Accommodations during this period.

From 2001-2004, Entertainment & Tourism jobs grew by over 4,500 jobs, or over 9%. The largest sector, Accommodation, reported over 27,800 jobs in 2004, with growth of 3%. Next, the Amusement, Gambling & Recreation Industries sector reported almost 15,000 jobs and 32% growth. The third largest sector, Performing Arts, Spectator Sports & Related Industries, reported 4,300 jobs and 3% growth for the period.

### 60,000 Accommodation 50,000 ■ Amusement, Gambling, and Recreation Industries 40,000 (Employment) □ Performing Arts. Spectator 30,000 Sports, and Related Industries ■ Museums, Historical Sites, and 20,000 Similar Institutions 10,000 ■ Motion Picture and Sound Recording Industries 2002 2003 2001 2004

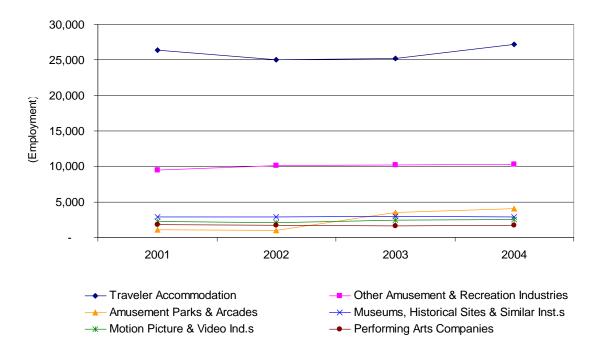
### **Entertainment & Tourism Jobs**

All but one of the five major sectors reported job growth. Only Motion Picture & Sound Recording Industries reported losses for the 2001-2004 period; less than 100 jobs were lost (3%).

Across all sectors, the leading sub-sectors were Traveler Accommodation (almost 27,200 jobs in 2004); Other Amusement & Recreation Industries (over 10,300 jobs); and Amusement Parks & Arcades (almost 4,100 jobs). Taking a closer look at Other Amusement & Recreation

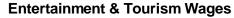
Industries, the majority of the jobs were found in Fitness & Recreational Sports Centers, with over 5,000 jobs in 2004, followed by Golf Courses & Country Clubs with almost 3,600 jobs.

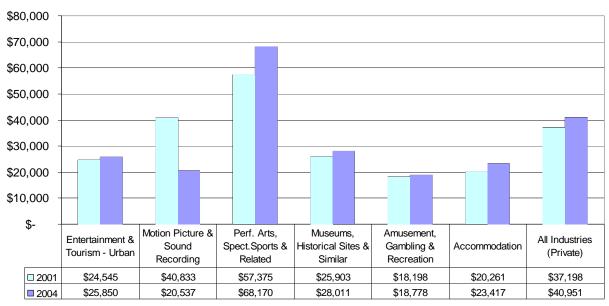




The industry's average annual wage for the region in 2004 was \$25,850, up over 5% from the 2001 average of \$24,545. Entertainment & Tourism provides 6% of the region's economic base jobs. Within the industry, the Performing Arts, Spectator Sports & Related Industries sector reported the highest average wage, at \$68,170.

The next graph shows the changes from 2001 to 2004 and compares the industry's average with the region's overall average wage (all industries).





The following table provides data on sub-sectors in the industry, listed in NAICS code order:

Southern Border Region				
Entertainment & Touri	sm			
(Thousands of jobs)				
	1990	2000	2002*	2004
Motion Picture & Sound Recording Industries	2.3	3.2	2.5	2.7
Performing Arts, Spectator Sports, and Related Industries	6.1	3.5	3.3	4.3
Museums, Historical Sites, and Similar Institutions	1.8	2.3	2.5	2.9
Amusement, Gambling, and Recreation Industries	8.5	12.1	11.7	15.0
Accommodation		27.0	25.6	27.8
Entertainment & Tourism	43.0	48.1	45.6	52.8

Source: California Employment Development Department

Employment numbers for 1990, 2000 and 2002 were taken from the first economic base report.

<sup>\*</sup> The current data differs for 2002, showing 46,300 jobs.

#### **ALL GOVERNMENT**

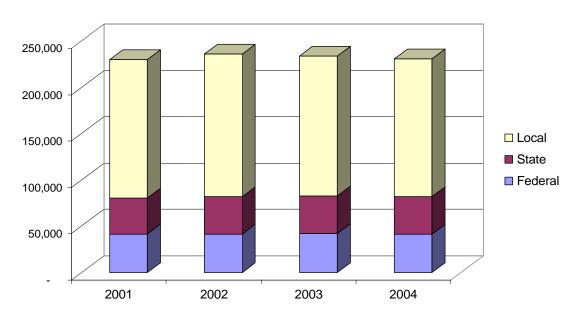
All Government includes federal, state and local government jobs. Jobs in public education are reported in the state and local government sectors. Government jobs also include defense (reported at the federal level), law enforcement, firefighting and public services. In the original economic base report, Local Government was not included.

All Government is the largest component of the Southern Border Region's economic base. This industry provided over 26% of the economic base jobs in the region in 2004, and over 17% of all jobs in the region.

From 1990-2002, Federal Government jobs fell less than in other regions as military base losses were less than in most other regions. The Federal Government job losses were offset by increases in State Government job levels (led by State Government Education). Basic Government (Federal and State combined) employment grew from 77,600 jobs in 1990 to 80,500 jobs in 2002.

In 2004, Local Government represented over 64% of all government jobs; State Government represented almost 18%, and Federal Government represented 18%.

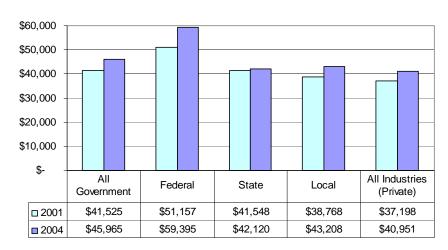
#### All Government Jobs



From 2001-2004, All Government grew from 229,900 to 230,800 – up 900 jobs or 0.4%. Federal and Local Government decreased slightly (less than 1% each), while State Government, led by State Government Education, grew by 5%. Within Federal Government, Defense jobs decreased by 600 jobs during this period, while Other Federal Government jobs increased slightly, by 0.5%. Within State Government, State Government Education grew by 8%, while Other State Government jobs decreased by 0.6%. Within Local Government, Local Government Education lost 4,500 jobs, down 6%, while Other Local Government grew by 3,600 jobs, or 6%.

All Government average annual wages include the wages for a broad spectrum of jobs, including elected officials and executive branch, judicial, defense, law enforcement, firefighting, education and other public administration jobs. The industry's average annual wage for the region in 2004 was \$45,965, up almost 11% from the 2001 average of \$41,525. Within All Government, the average annual wage for Federal Government was \$59,395; the average for State Government was \$42,120; and, the average annual wage for Local Government was \$43,208. The following chart graphs the changes from 2001 to 2004 and compares the industry's average with the region's overall average wage (all industries).





The following table shows employment for each level of government from 2001-2004:

Southern Borde All Governn (Thousands of	nent			
,	2001	2002	2003	2004
Federal Government (includes Defense)	42.0	42.0	42.1	41.7
Federal Government Defense	20.2	20.2	20.0	19.6
State Government (includes Education)	38.8	40.4	40.8	40.7
State Government Education	23.4	24.8	25.3	25.3
Local Government (includes Education)	149.1	153.9	151.2	148.4
Local Government Education	76.5	77.8	74.8	72.0

Source: California Employment Development Department

Some government employment may be suppressed due to confidentiality requirements.

## **APPENDIX A: Definition of Industry Sectors and Clusters by NAICS Codes**

The following lists the major industries and clusters included in the economic base reports, and defines them by NAICS code and classification. Most of these are defined at the three-digit and/or four-digit NAICS code levels, but some are defined at the five-digit and/or six-digit NAICS code levels.

#### THE FOOD CHAIN

#### **Distribution**

4244	Grocery and Related Product Wholesalers
4245	Farm Product Raw Material Merchant Wholesalers
4248	Beer, Wine, and Distilled Alcoholic Beverage Merchant Wholesalers
42491	Farm Supplies Merchant Wholesalers
4452	Specialty Food Stores
49313	Farm Product Warehousing and Storage

### **Processing**

3111	Animal Food Manufacturing
3112	Grain and Oilseed Milling
3113	Sugar and Confectionery Product Manufacturing
3114	Fruit and Vegetable Preserving and Specialty Food Manufacturing
3115	Dairy Product Manufacturing
3116	Animal Slaughtering and Processing
3117	Seafood Product Preparation and Packaging
3118	Bakeries and Tortilla Manufacturing
3119	Other Food Manufacturing
322215	Nonfolding Sanitary Food Container Manufacturing
32616	Plastics Bottle Manufacturing
327213	Glass Container Manufacturing
332115	Crown and Closure Manufacturing
332431	Metal Can Manufacturing
31211	Soft Drink and Ice Manufacturing
31212	Breweries
31213	Wineries
31214	Distilleries

#### **Production**

Ш	Oilseed and Grain Farming
1113	Fruit and Tree Nut Farming
11141	Food Crops Grown Under Cover
11193	Sugarcane Farming
11194	Hay Farming
111991	Sugar Beet Farming
111992	Peanut Farming
1112	Vegetable and Melon Farming

111998	All Other Miscellaneous Crop Farming
1121	Cattle Ranching and Farming
1122	Hog and Pig Farming
1123	Poultry and Egg Production
1124	Sheep and Goat Farming
1125	Animal Aquaculture
1129	Other Animal Production
1141	Fishing
1142	Hunting and Trapping

# Support

1151	Support Activities for Crop Production
1152	Support Activities for Animal Production
22131	Water Supply and Irrigation Systems
23711	Water and Sewer Line and Related Structures Construction
32192	Wood Container and Pallet Manufacturing
3253	Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing
33311	Agricultural Implement Manufacturing
333294	Food Product Machinery Manufacturing
42382	Farm and Garden Machinery and Equipment Merchant Wholesalers
54194	Veterinary Services

## **CONSTRUCTION**

236	Construction of Buildings
2361	Residential Building Construction
2362	Nonresidential Building Construction
237	Heavy and Civil Engineering Construction
2371	Utility System Construction
2372	Land Subdivision
2373	Highway, Street, and Bridge Construction
2379	Other Heavy and Civil Engineering Construction
238	Specialty Trade Contractors
2381	Foundation, Structure, and Building Exterior Contractors
2382	Building Equipment Contractors
2383	Building Finishing Contractors
2389	Other Specialty Trade Contractors

# **MANUFACTURING VALUE CHAIN**

# Design

5413	Architectural, Engineering, and Related Services
5414	Specialized Design Services
5416	Management, Scientific, and Technical Consulting Services
5419	Other Professional, Scientific, and Technical Services

## **Production**

3111	Animal Food Manufacturing
3112	Grain and Oilseed Milling
3113	Sugar and Confectionery Product Manufacturing
3114	Fruit and Vegetable Preserving and Specialty Food Manufacturing
3115	Dairy Product Manufacturing
3116	Animal Slaughtering and Processing
3117	Seafood Product Preparation and Packaging
3118	Bakeries and Tortilla Manufacturing
3119	Other Food Manufacturing
3121	Beverage Manufacturing
3122	Tobacco Manufacturing
3131	Fiber, Yarn, and Thread Mills
3132	Fabric Mills
3133	Textile and Fabric Finishing and Fabric Coating Mills
3141	Textile Furnishings Mills
3149	Other Textile Product Mills
3151	Apparel Knitting Mills
3152	Cut and Sew Apparel Manufacturing
3159	Apparel Accessories and Other Apparel Manufacturing
3161	Leather and Hide Tanning and Finishing
3162	Footwear Manufacturing
3169	Other Leather and Allied Product Manufacturing
3211	Sawmills and Wood Preservation
3212	Veneer, Plywood, and Engineered Wood Product Manufacturing
3219	Other Wood Product Manufacturing
3221	Pulp, Paper, and Paperboard Mills
3222	Converted Paper Product Manufacturing
3231	Printing and Related Support Activities
3241	Petroleum and Coal Products Manufacturing
3251	Basic Chemical Manufacturing
3252	Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments M
3253	Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing
3255	Paint, Coating, and Adhesive Manufacturing
3256	Soap, Cleaning Compound, and Toilet Preparation Manufacturing
3259	Other Chemical Product and Preparation Manufacturing
3261	Plastics Product Manufacturing
3262	Rubber Product Manufacturing
3271	Clay Product and Refractory Manufacturing
3272	Glass and Glass Product Manufacturing
3273	Cement and Concrete Product Manufacturing
3274	Lime and Gypsum Product Manufacturing
3279	Other Nonmetallic Mineral Product Manufacturing
3311	Iron and Steel Mills and Ferroalloy Manufacturing
3312	Steel Product Manufacturing from Purchased Steel
3313	Alumina and Aluminum Production and Processing
3314	Nonferrous Metal (except Aluminum) Production and Processing
3315	Foundries
3321	Forging and Stamping
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3322	Cutlery and Handtool Manufacturing
3323	Architectural and Structural Metals Manufacturing
3324	Boiler, Tank, and Shipping Container Manufacturing
3325	Hardware Manufacturing
3326	Spring and Wire Product Manufacturing
3327	Machine Shops-Turned Product- and Screw, Nut, and Bolt Manufacturi ng
3328	Coating, Engraving, Heat Treating, and Allied Activities
3329	Other Fabricated Metal Product Manufacturing
3331	Agriculture, Construction, and Mining Machinery Manufacturing
3332	Industrial Machinery Manufacturing
3333	Commercial and Service Industry Machinery Manufacturing
3334	Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equ
3335	Metalworking Machinery Manufacturing
3336	Engine, Turbine, and Power Transmission Equipment Manufacturing
3339	Other General Purpose Machinery Manufacturing
3341	Computer and Peripheral Equipment Manufacturing
3342	Communications Equipment Manufacturing
3343	Audio and Video Equipment Manufacturing
3344	Semiconductor and Other Electronic Component Manufacturing
3345	Navigational, Measuring, Electromedical, and Control Instruments Manufac
3346	Manufacturing and Reproducing Magnetic and Optical Media
3351	Electric Lighting Equipment Manufacturing
3352	Household Appliance Manufacturing
3353	Electrical Equipment Manufacturing
3359	Other Electrical Equipment and Component Manufacturing
3361	Motor Vehicle Manufacturing
3362	Motor Vehicle Body and Trailer Manufacturing
3363	Motor Vehicle Parts Manufacturing
3364	Aerospace Product and Parts Manufacturing
3371	Household and Institutional Furniture and Kitchen Cabinet Manufacturing
3372	Office Furniture (including Fixtures) Manufacturing
3379	Other Furniture Related Product Manufacturing
Logistics	
4811	Scheduled Air Transportation
4812	Nonscheduled Air Transportation
4821	Rail Transportation
4831	Deep Sea, Coastal, and Great Lakes Water Transportation
4832	Inland Water Transportation
4841	General Freight Trucking
4842	Specialized Freight Trucking

Pipeline Transportation of Crude Oil

Other Pipeline Transportation

Pipeline Transportation of Natural Gas

Support Activities for Air Transportation

Support Activities for Rail Transportation

Support Activities for Water Transportation

Support Activities for Road Transportation

Freight Transportation Arrangement

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4889	Other Support Activities for Transportation
4911	Postal Service
4921	Couriers
4922	Local Messengers and Local Delivery
4931	Warehousing and Storage

## WHOLESALE TRADE

423	Merchant Wholesalers, Durable Goods
424	Merchant Wholesalers, Nondurable Goods
425	Wholesale Electronic Markets & Agents & Brokers

#### **RETAIL TRADE**

441	Motor Vehicle and Parts Dealers
4411	Automobile Dealers
4412	Other Motor Vehicle Dealers
4413	Automotive Parts, Accessories, and Tire Stores
442	Furniture and Home Furnishings Stores
4421	Furniture Stores
4422	Home Furnishings Stores
443	Electronics and Appliance Stores
4431	Electronics and Appliance Stores
444	Building Material and Garden Equipment and Supplies Dealers
4441	Building Material and Supplies Dealers
4442	Lawn and Garden Equipment and Supplies Stores
445	Food and Beverage Stores
4451	Grocery Stores
4452	Specialty Food Stores
4453	Beer, Wine, and Liquor Stores
446	Health and Personal Care Stores
4461	Health and Personal Care Stores
447	Gasoline Stations
4471	Gasoline Stations
448	Clothing and Clothing Accessories Stores
4481	Clothing Stores
4482	Shoe Stores
4483	Jewelry, Luggage, and Leather Goods Stores
451	Sporting Goods, Hobby, Book, and Music Stores
4511	Sporting Goods, Hobby, and Musical Instrument Stores
4512	Book, Periodical, and Music Stores
452	General Merchandise Stores
4521	Department Stores
4529	Other General Merchandise Stores
453	Miscellaneous Store Retailers
4531	Florists
4532	Office Supplies, Stationery, and Gift Stores
4533	Used Merchandise Stores
4539	Other Miscellaneous Store Retailers
454	Nonstore Retailers

4541	Electronic Shopping and Mail-Order House
4542	Vending Machine Operators
4543	Direct Selling Establishments

#### **BASIC INFORMATION SERVICES**

511	Publishing Industries (except Internet)
515	Broadcasting (except Internet)
516	Internet Publishing and Broadcasting
517	Telecommunications
518	Internet Service Providers, Web Search Portals, and Data Processing Serv
519	Other Information Services
5111	Newspaper, Periodical, Book, and Directory Publishers
5112	Software Publishers
5151	Radio and Television Broadcasting
5152	Cable and Other Subscription Programming
5161	Internet Publishing and Broadcasting
5171	Wired Telecommunications Carriers
5172	Wireless Telecommunications Carriers (except Satellite)
5173	Telecommunications Resellers
5174	Satellite Telecommunications
5175	Cable and Other Program Distribution
5179	Other Telecommunications
5181	Internet Service Providers and Web Search Portals
5182	Data Processing, Hosting, and Related Services
5191	Other Information Services

# **REAL ESTATE & RENTAL & LEASING**

Real Estate
Lessors of Real Estate
Offices of Real Estate Agents and Brokers
Activities Related to Real Estate
Rental and Leasing Services
Automotive Equipment Rental and Leasing
Consumer Goods Rental
General Rental Centers
Commercial and Industrial Machinery and Equipment Rental and Leasing
Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)
Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)

# PROFESSIONAL, SCIENTIFIC, TECHNICAL & MANAGEMENT SERVICES

5 <del>4</del> 1	Professional, Scientific, and Technical Services
5411	Legal Services
5412	Accounting, Tax Preparation, Bookkeeping, and Payroll Services
5413	Architectural, Engineering, and Related Services
5414	Specialized Design Services

5415	Computer Systems Design and Related Services
5416	Management, Scientific, and Technical Consulting Services
5417	Scientific Research and Development Services
5418	Advertising and Related Services
5419	Other Professional, Scientific, and Technical Services
55 I	Management of Companies and Enterprises
5511	Management of Companies and Enterprises

# **ADMINISTRATIVE & SUPPORT & WASTE SERVICES**

561	Administrative and Support Services
5611	Office Administrative Services
5612	Facilities Support Services
5613	Employment Services
5614	Business Support Services
5615	Travel Arrangement and Reservation Services
5616	Investigation and Security Services
5617	Services to Buildings and Dwellings
5619	Other Support Services
562	Waste Management and Remediation Services
5621	Waste Collection
5622	Waste Treatment and Disposal
5629	Remediation and Other Waste Management Services

## **HEALTH SCIENCES & SERVICES**

3254	Pharmaceutical and Medicine Manufacturing
3391	Medical Equipment and Supplies Manufacturing
5417	Scientific Research and Development Services
6211	Offices of Physicians
6212	Offices of Dentists
6213	Offices of Other Health Practitioners
6214	Outpatient Care Centers
6215	Medical and Diagnostic Laboratories
6216	Home Health Care Services
6219	Other Ambulatory Health Care Services
6221	General Medical and Surgical Hospitals
6222	Psychiatric and Substance Abuse Hospitals
6223	Specialty (except Psychiatric and Substance Abuse) Hospitals
6231	Nursing Care Facilities
6232	Residential Mental Retardation, Mental Health and Substance Abuse Facilities
6233	Community Care Facilities for the Elderly
6239	Other Residential Care Facilities
6242	Community Food and Housing, and Emergency and Other Relief Services
6243	Vocational Rehabilitation Services
8122	Death Care Services

#### **ENTERTAINMENT & TOURISM - URBAN REGIONS**

512	Motion Picture and Sound Recording Industries
711	Performing Arts, Spectator Sports, and Related Industries
712	Museums, Historical Sites, and Similar Institutions
713	Amusement, Gambling, and Recreation Industries
72 I	Accommodation

#### **ENTERTAINMENT & TOURISM - RURAL REGIONS**

711	Performing Arts, Spectator Sports, and Related Industries
712	Museums, Historical Sites, and Similar Institutions
713	Amusement, Gambling, and Recreation Industries
72 I	Accommodation
722	Food Services and Drinking Places

## OTHER SERVICES (EXCEPT PUBLIC ADMINISTRATION)

811	Repair and Maintenance
8111	Automotive Repair and Maintenance
8112	Electronic and Precision Equipment Repair and Maintenance
8113	Commercial and Industrial Machinery and Equipment
8114	Personal and Household Goods Repair and Maintenance
812	Personal and Laundry Services
8121	Personal Care Services
8122	Death Care Services
8123	Drycleaning and Laundry Services
8129	Other Personal Services
813	Religious, Grantmaking, Civic, Professional, and Similar Organizations
8131	Religious Organizations
8132	Grantmaking and Giving Services
8133	Social Advocacy Organizations
8134	Civic and Social Organizations
8139	Business, Professional, Labor, Political, and Similar Organizations
814	Private Households
8141	Private Households

#### **ALL GOVERNMENT**

Federal Government

Department of Defense

Other Federal Government

State Government

State Government Education

Other State Government

Local Government

Local Government Education

Other Local Government



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